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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/924,960	08/08/2001	Felix A. Levinzon	1575.2003-001	2004

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EXAMINER

CHAPMAN JR, JOHN E

ART UNIT PAPER NUMBER

2856

DATE MAILED: 12/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/924,960

Applicant(s)

LEVINZON, FELIX A.

Examiner

John E Chapman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-57 is/are pending in the application.
- 4a) Of the above claim(s) 14-19,33,34 and 51-55 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13,20-32,35-50,56 and 57 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 24, 2003 has been entered.
2. The substitute specification filed October 24, 2003 has been entered.
3. The disclosure is objected to because of the following informalities: It is not clear how low pass filter 6 can have a frequency range of 1.5 Hz to 8 kHz (page 7, line 28), since the one-pole low-pass pre-filter would limit the frequency range to 460 Hz (page 8, line 3). Appropriate correction is required.
4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 13, 32 and 50 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter that was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

It is not evident that the channels 2, 4 have an input impedance greater than 10 Mohm. The specification does not describe any channel having an input impedance of 10 Mohm. While a resistor R8 in Fig. 2 is illustrated as having an impedance of 10 Mohm, it is not evident that the resistor R8 causes the high frequency channel 4 to have an input impedance of 10 Mohm, nor is it evident that the low frequency channel 2 has an input impedance of 10 Mohm.

7. Claims 1-13, 20-32, 35-50, 56 and 57 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "high input impedance" in claims 1, 23, 37 and 38 is a relative term that renders the claims indefinite. The term "high input impedance" is not defined by the claims, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

In claim 2, line 1, "said at least" should be deleted, since one of the channels has not been previously designated.

Claim 6 merely recites a desired result (electrical isolation) without providing any means to achieve the desired result. A means for providing the desired result (i.e., electrically isolating the inputs to the two channels from one another) should be recited.

Regarding claim 9, it is not clear that there is any channel that is not coupled directly to the transducer. If the “high impedance element” is intended to read upon buffer 10, then it would comprise a double recitation of elements. Furthermore, channel 4 would then not be coupled at a common node with channel 2, as recited in claim 1. In addition, “characteristics” in line 2 should be change to –signal--.

Regarding claim 23, it is not clear whether “with high input impedance” limits both channels or only the second channel.

Regarding claim 30, “conditioning” is vague and indefinite. It should be made clear how the signal is conditioned.

Claim 43 merely recites a desired result without providing any means to achieve the desired result. A means for providing the desired result should be recited.

Regarding claim 46, it is not clear what “impedance element” is being claimed. If the “impedance element” is intended to read upon buffer 10, then it would comprise a double recitation of elements.

8. Claims 1-6, 20-28, 35-43, 56 and 57, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Harms et al.

Harms et al. discloses a system for converting sensed force into electrical signals comprising a piezoelectric transducer 1, a high-pass filter 9 and a low-pass filter 10. A node

connecting the filters is coupled to the output of the transducer via an operational amplifier 5.

All filters inherently possess an input impedance. Whether it is “high” is a relative term that is given no patentable weight, since any impedance will be “high” with respect to some other impedance.

Regarding claim 4, low pass and high pass filters conventionally comprise an amplifier.

Regarding claim 5, the filters provide an offset signal by virtue of the DC offset (col. 11, lines 40-43).

Regarding claim 6, the filters are isolated by virtue of being in parallel circuits.

9. Claims 1, 2, 4, 6, 20-26, 28, 35-41, 43, 56 and 57, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Pflueg.

Pflueg discloses a system for converting sensed force into electrical signals comprising a transducer 42 and two filters 100 and 101 in Fig. 7B. A node connecting the filters is coupled to the output of the transducer by means of amplifiers 78, 76. All filters have an input impedance. Whether it is “high” is a relative term that is given no patentable weight, since any impedance will be “high” with respect to some other impedance.

10. Claims 1, 2, 4, 6-11, 20-26, 28-31, 35-41, 43-48, 56 and 57, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Flechsig et al.

Flechsig et al. discloses a system for converting sensed force into electrical signals comprising a piezoelectric transducer 610, a high-pass filter 632 and a low-pass filter 642. A node connecting the filters is coupled to the output of the transducer by means of a preamplifier

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620. All filters have an input impedance. Whether it is “high” is a relative term that is given no patentable weight, since any impedance will be “high” with respect to some other impedance.

Regarding claim 4, amplifiers 630 and 640 may be deemed part of low pass filter 632 and high pass filter 642.

Regarding claim 6, the filters are isolated by virtue of amplifiers 630 and 640.

Regarding claim 7, amplifier 640 comprises a buffer. It is noted that applicant uses a buffer 10 implemented as a unity gain operational amplifier.

Regarding claim 9, amplifiers intrinsically possess an impedance.

11. Claims 13, 32 and 50, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Harms et al. or Pflueg or Flechsig et al.

Regarding claims 13, 32 and 50, the only difference between the claimed invention and the prior art consists in the particular value of the input impedance. A filter having an input impedance greater than 10 M-Ohm would have worked in substantially the same manner to produce substantially the same results as the prior art, and therefore the particular value chosen is given no patentable weight.

12. Applicant's arguments filed October 24, 2003 have been fully considered but they are not persuasive. Applicant argues that the node in Harms et al. is at the output of an operational amplifier 6 and not at the output of a transducer 1. However, the claims do not require that the node be at the output of a transducer, but rather that the node be coupled to the output of the transducer. The claims do not preclude an operational amplifier from coupling the node to the

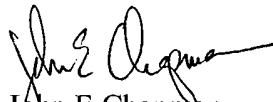
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output of a transducer. Likewise, the claims do not preclude amplifiers 78, 76 of Pflueg or preamplifier 620 of Flechsig et al. from coupling the node to the output of a transducer.

Applicant argues that the transducer disclosed by applicant in Fig. 2 has a high output impedance. Such argument is given no weight, since the claims do not recite a transducer having a high output impedance, and furthermore "high" is a relative term.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John E Chapman whose telephone number is (703) 305-4920. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (703) 305-4705. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.


John E Chapman
Primary Examiner
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